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DEPARTMENT OF THE ARMY  
HEADQUARTERS, 159TH ENGINEER GROUP  
APO 96491

AVEGB-CO

20 November 1971

SUBJECT: Operational Report - Lessons Learned, 159th Engineer Group  
(Construction), Period Ending 31 Oct 71, RCS CSFOR-65 (R3)

THRU: Commanding General, USARENGROGMDV, ATTN: AVCC-MO, APO 96491  
Commanding General, USARV, ATTN: AVHDO-DO, APO 96375  
Commander-in-Chief, USARPAC, ATTN: GPOP-DT, APO 96588

TO: Assistant Chief of Staff for Force Development  
Department of the Army  
Washington, D.C. 20310

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Test and Evaluation; 5 MAR 1973. Other requests  
for this document must be referred to

*Deputy Chief  
of Staff for military operations  
ATTN: DAMO-DO U  
Wash, D.C. 20310-*

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(Construction), Period Ending 31 Oct 71, RCS CSFOR-65(R3)

2. Lessons Learned: Commanders Observations, Evaluation, and Recommendations

a. Personnel: None

b. Intelligence:

(1) Convoy Procedures

(a) Observation: Lack of enemy activity in an area of operation creates complacency and a disregard for proper security procedures. Infrequent enemy contact along QL-20 resulted in almost unrestricted travel of vehicles without firepower or communication capability. On 27 October a dump truck convoy was ambushed just north of Rivers Asphalt Plant on QL-20. The convoy contained no escort or communications. Results were 1 KIA (US) and 2 WIA (US).

(b) Evaluation: Operations based on enemy intentions instead of enemy capabilities are unnecessary risks of personnel and equipment.

(c) Recommendation: Units should insure proper security at all times.

(d) Command Action: One OH-58 and one cobra gunship conduct a daily sweep of QL-20. Gun trucks (MP if possible) and adequate communication are provided to each convoy.

(2) Overclassification of intelligence data

(a) Observation: Intelligence data is often overclassified. During the recent election period notification of increased alert status have been transmitted by messages classified confidential and secret. Almost simultaneously this information has been publicly announced by AFVN, Stars & Stripes, and other news media. Furthermore, alert status of individual roads has also been classified confidential.

(b) Evaluation: Overclassification of intelligence data creates an unnecessary administrative burden in securing such information and degrades the use of protective markings. The large number of classified documents containing information which has been publicly announced results in carelessness in handling and dissemination and creates habits which could result in compromise of other information. Furthermore, classification of road status impedes the rapid dissemination of information by unsecure telephone. When an incident occurs which results in an increased alert status, it is essential to notify units in the area immediately. This information must be disseminated to every individual using the road, to include many drivers who have no security clearance.

(c) Recommendation: Only consolidated lists of road status should be classified. Increased alert conditions should be classified only if disclosure of such information is prejudicial or

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hazardous to the defenses of the United States and is not publicly announced.

(d) Command Action: None

c. Operations:

(1) Precast Concrete Bunkers

(a) Observation: A shortage of heavy timbers used by the 31st Engineer Battalion carpenter shop was causing considerable delays in the production of prefabricated bunkers. The greatest demand was for the Columbine perimeter firing bunker; this bunker was being used extensively in perimeter upgrade projects, to include the reconfiguration of the Long Binh berm.

(b) Evaluation: A substitute building material was required for the construction of the perimeter bunkers. The 92nd Engineer Battalion's precast concrete yard was producing concrete slabs used for helicopter revetments which were 6 inches thick, 8 feet long, and were produced in various heights; it was envisioned that a modified revetment slab could serve as a wall in a precast concrete firing bunker.

(c) Recommendation: A design for the bunker was drawn using 8 foot square slabs as walls, mounted on a 10 foot square concrete slab base. Each wall slab contains a 1.5 foot by 5 foot window that serves as a firing port on three sides of the bunker; on the fourth side the slab is turned so that the window serves as an entrance door. The slabs are reinforced with #4 reinforcing steel. The wall slabs are joined together with four  $\frac{1}{4}$ "x6"x6" steel angles and  $\frac{3}{4}$ " bolts. A timber roof structure is placed over the wall slabs; this roof is designed only for weather protection.

(d) Command Action: The 92nd Engineer Battalion began production of the precast concrete bunkers in August 1971. The 159th Group goal is a production rate of five bunkers per week.

(2) 36 foot Observation Tower

(a) Observation: The reconfiguration of the Long Binh berm called for numerous observation towers to take place of perimeter bunker positions. There were no 36 foot Tulip wooden prefabricated towers on hand at the 31st Engineer Battalion carpenter shop and none would be available in the near future due to a shortage of required lumber.

(b) Evaluation: A substitute for the wooden observation tower was required. It was also desirable that such a substitute afford a degree of protection to the occupant of the tower. It was found that a quantity of 36 foot steel water towers were on hand at Long Binh depot that could serve as a base for an observation tower.

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(c) Recommendation: To provide an enclosure for the top of the 36 foot tower it was decided to use a precast concrete bunker. A tower thus constructed would provide observation plus the desired degree of protection from small arms fire for the tower's occupant.

(d) Command Action: The combination 36 foot water tower and precast bunker will be used for the observation tower requirements on the Long Binh berm.

d. Organization: None

e. Training: None

f. Logistics: None

g. Communications: None

h. Material

(1) Insufficiency of TOE repair parts vans

(a) Observation: The number of repair parts vans authorized and the design of those issued are inadequate.

(b) Evaluation: The present vans, M749 and 750, have two design features which made them less than desirable. First, they are affixed to a trailer chassis. This causes the trailer to be elevated some four feet. Loading and unloading parts utilizing the metal ladders is a dangerous feat at best. This feature is also economically unsound in that the chassis is, of course, needed only during moves which, for a construction battalion, are normally not overly frequent. Second, they have doors along the entire length of the trailer. It is realized this is to increase shelf space; however, more detriment than benefit is realized. These long doors are easily sprung and even if not, are a nuisance to close when weather protection or physical security is desired. MTOE 5-117G authorizes three vans for the A company and none for the other three line companies. This is inadequate when it is realized A company ASL's run from 1500 lines to 3000 while PLL's run from 250 to 600. Failure to provide adequate storage for repair parts results in dollar loss of repair parts damaged, lost, weathered, or stolen as well as loss in efficiency of repair capability.

(c) Recommendation: Design of repair parts vans be changed to have entry only through rear of van with shelving along the outside walls accessible only from the inside, and to have separable chassis such as is used on Sea-Land or Milvan units. This will conserve expensive chassis, allow placement of vans at ground level, and provide doors which can be easily shut to provide weather and theft protection. It is also recommended to increase authorization of the van portion to six for A company ASL, two for A company PLL, and one each for B, C, and D companies.

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The chassis should be provided at a 1:3 ratio, i.e., three per battalion. This will greatly improve parts control, use, and protection, one of the major problems for field units.

(d) Command Action: A recommended change to MTOE and an equipment improvement recommendation is being prepared by the group.

i. Other:

(1) Liaison with USA Inventory Control Center (ICCV and USA Depot)

(a) Observation: Personnel tasked with screening repair parts requisitions in Long Binh Depot and ICCV and making procurement decisions are frequently not familiar with the needs of engineer units, causing numerous costly and incorrect decisions.


(b) Evaluation: Repeated requisition cancellation by item managers who have no knowledge of engineer equipment has cost engineer units many hours of down time for lack of the part. This is true in both quantity and kind determinations. A major technical command such as US Army Engineer Command Vietnam should have an influential liaison staff assigned to ICCV and depot to provide correct information and priorities to item managers and others making judgments as to legitimacy and urgency of requests.

(c) Recommendation: Arrangements be made as appropriate to appoint an officer to conduct liaison with appropriate personnel in the US Army Depot, LBN, and USAICCV on material requisitions from Engineer Command units.

(d) Command Action: None

3 Incl

1. Schematic Organization
2. Station List
3. Sketch of Precast Concrete Bunker

  
JOHN W. BRENNAN  
COL, CE  
Commanding

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AVHDO-DC (20 Nov 71) 1st Ind

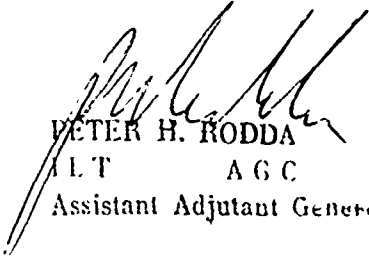
SUBJECT: Operational Report -- Lessons Learned, 159th Engineer Group  
(Construction), Period Ending 31 Oct 71, RCS CSFOR-65(R3)

Headquarters, United States Army Vietnam, APO San Francisco 96375 6 APR 1972

TO: Commander in Chief, United States Army Pacific, ATTN: GPOP-FD,  
APO 96558

This headquarters has reviewed the Operational Report-Lessons Learned from Headquarters, 159th Engineer Group and concurs with comments of indorsing headquarters.

FOR THE COMMANDER:



PETER H. RODDA

1LT

AGC

Assistant Adjutant General

Cy furn:  
159th Engr Gp  
USARENGRCOMDV

GPOP-FD (20 Nov 70) 2d Ind  
SUBJECT: Operational Report-Lessons Learned, HQ 159th Engineer  
Group (Const), Period Ending 31 October 1971,  
RCS CSFOR-65 (R3)

HQ, US Army, Pacific, APO San Francisco 96558

15 MAY 1972

TO: HQDA (DAFD-ZA) WASH DC 20310

This headquarters concurs in subject report as indorsed.

FOR THE COMMANDER IN CHIEF:

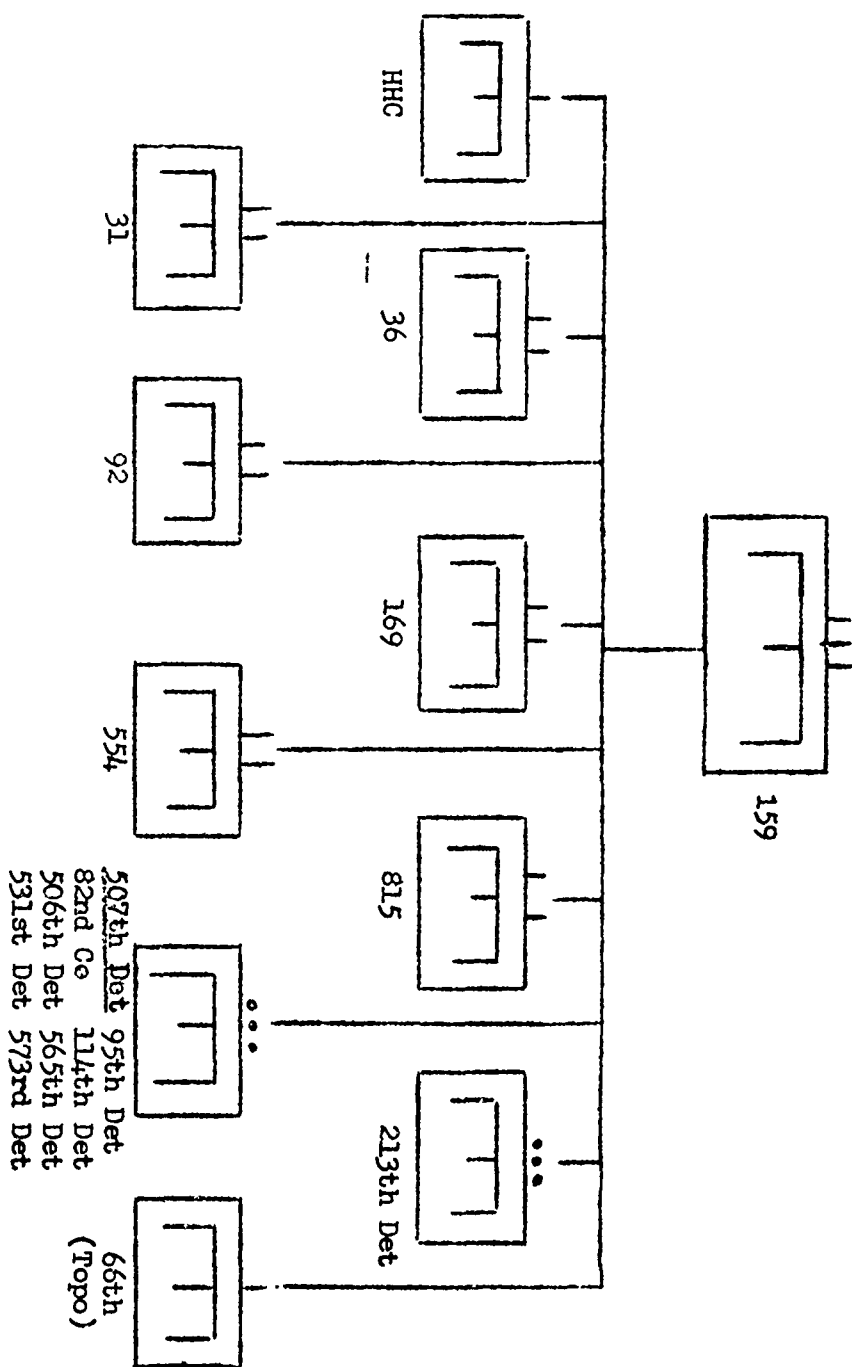
*M. L. Mah*

M. L. MAH  
1LT, AGC  
Asst AG

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# 159TH ENGINEER GROUP ORGANIZATION (31 OCTOBER)



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Incl 2

DEPARTMENT OF THE ARMY  
HEADQUARTERS, 159TH ENGINEER GROUP  
APO 96491

AVEGB-OP

6 November 1971

Commanding General  
US Army Engineer Command, Vietnam  
ATTN: AVCC-MO  
APO 96491

<u>UNIT</u>	<u>UIC</u>	<u>LOCATION</u>	<u>COORDINATES</u>	<u>APC</u>
159th Engineer Group				
Hq, 159th Engr Gp	WA94AA	Long Binh	YT030068	96491
HHC 159th Engr Gp	WA94AA	Long Binh	YT030068	96491
66th Engr Co (TOFO)	WBDHAA	Plantation	YT058117	96491
213th Engineer Detachment (Util)				
213th Engr Det	WD31AA	Binh Thuy	VS803134	96219
507th Engineer Detachment (Util)				
82nd Engr Co (US)	WBJ2AA	Long Binh Post	YT048093	96348
95th Engr Det (FF)	WDXSAA	Long Binh Post	YT048093	96348
114th Engr Det (FF)	WD40AA	Long Binh Post	YT048093	96348
506th Engr Det (Util)	WBE6AA	Vung Tau	YS305473	96291
507th Engr Det (Util)	WAQHAA	Long Binh Post	YT048093	96348
531st Engr Det (Util)	WDECAA	Long Binh Post	YT048093	96348
565th Engr Det (FF)	WCZZAA	Quan Loi	XT811910	96490
573rd Engr Det (FF)	WCZ2AA	Long Binh Ammo	YT048093	96348
31st Engineer Battalion				
Hq, 31st Engr Bn	WAZ4AA	Long Binh	YT038071	96491
HHC	WAZ4TO	Long Binh	YT038071	96491
A Co	WAZ4AO	Long Binh	YT038071	96491
B Co	WAZ4BO	Camp Brown	YT845622	96491
C Co	WAZ4CO	Phu Loi	XT855165	96491
557th Engr Co (LE) Less Quarry Section	WBBOAA	Long Binh	YT038071	96491

Incl 2 to IN2

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AVEGB-OP  
SUBJECT: Troop List, 159th Engr Group.

<u>UNIT</u>	<u>UIC</u>	<u>LOCATION</u>	<u>COORDINATES</u>	<u>APO</u>
USA Maint Det (PROV)	WOBRCG	Long Binh	YT066054	96491
60th Engr Co (LC)	WEQUAA	Long Binh	YT066054	96491
984th Engr Co (LC)	WBCQAA	Long Binh	YT066054	96491
100th Engr Co (FB)	WBB6AA	Long Binh	YT066054	96491
USA Maint Det (PROV)	WOBRCH	Long Binh	YT038071	96491

92nd Engineer Battalion (Const)

Hq, 92nd Engr Bn (Const)	WBAHHA	Long Binh	YT064055	96491
HHC	WBAHTO	Long Binh	YT064055	96491
A Co	WBAHAO	Long Binh	YT064055	96491
B Co	WBAHBO	Long Binh	YT064055	96491
C Co	WBAHCO	Long Binh	YT064055	96491
D Co	WBAHDO	Long Binh	YT064055	96491
D Co 169th Engr Bn	WBALDO	Long Binh	YT063071	96491
94th Engr Det (Q)	WD37AA	Vung Tau	YS300480	96491
22nd Engr Det (WD)	WDZVAA	Long Binh	YT064055	96491
714th Engr Det (PL)	WG3DAA	Long Binh	YT064055	96491
103rd Engr Co (CS)	WCW5AA	Nui Le	YT659074	96491

169th Engineer Battalion (Const)

Hq, 169th Engr Bn	WBALAA	Long Binh	YT063071	96491
HHC	WBALTO	Long Binh	YT063071	96491
A Co	WBALAO	Long Binh	YT063071	96491
B Co	WBALBO	QL-20	YT741506	96491
C Co	WBALCO	QL-20	YT483340	96491
43rd Engr Co (DT)	WDEGAA	Long Binh	YT063071	96491
544th Engr Co (CS)	WDVBAA	Gia Kiem	YT348165	96491
Quarry Section 557th Engr Co (LE)	WBBOAA	Gia Kiem	YT348165	96491

AVEGB-OP  
SUBJECT: Troop List, 159th Engineer Group

<u>UNIT</u>	<u>UIC</u>	<u>LOCATION</u>	<u>COORDINATES</u>	<u>APO</u>
702nd Engr Det (PL)	WG3E44	Long Binh	YT063071	96491

554th Engineer Battalion

Hq, 554th Engr Bn	WDE0AA	Camp Smith	ZT023753	96493
HHC	WDEOTO	Camp Smith	ZT023753	96493
A Co	WDEOAO	Camp Smith	ZT023753	96493
B Co	WDEOBO	Camp Fennell	ZT064793	96493
C Co	WDEOCO	Half Way Quarry	YT985700	96493
D Co	WDEODO	Camp Smith	ZT023753	96493
547th Engr Plt (Asp)	WDN5AA	Camp Smith	ZT023753	96493

815th Engineer Battalion

Hq, 815th Engr Bn	WDE1AA	Dillard IWS	AN981858	96204
HHC	WDE1TO	Dillard IWS	AN981858	96204
A Co	WDE1AO	Dillard IWS	AN981858	96204
B Co	WDE1BO	Di Linh	AN813813	96204
C Co	WDE1CO	Dillard IWS	AN981858	96204
D Co	WDE1DOO	Dillard IWS	AN981858	96204
B Co 577th Engr Bn	WBAQBOO	Di Linh	AN813813	96204
102nd Engr Co (CS)	WBASSA	Dillard IWS	AN981858	96204
1/585th Engr Co (DT)	WBBEAA	Dillard IWS	AN 981858	96204
542nd Engr Det (PL)	WBENAA	Da Nang	BT080780	UNK

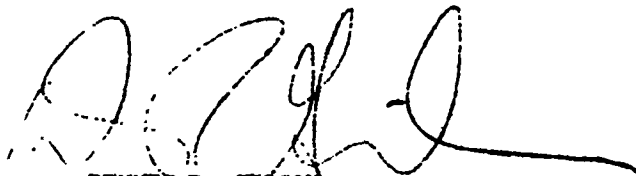
36th Engineer Battalion

Hq, 36th Engr Bn (Const)	WDZPAA	Vinh Long	XS043333	96357
HHC	WDXPTO	Vinh Long	XS043333	96357
A Co	WDZNAO	Vinh Long	XS043333	96357
B Co	WDZPBO	Ap Nuoc Xay	XS177180	96357
C Co	WDZPCO	Tra Vinh(Xom Vam)	XS489025	96357
D Co	WDZNDO	Tra Vinh(Xom Vam)	XS489025	96357

AVEGB-OP  
SUBJECT: Troop List, 159th Engineer Group

<u>UNIT</u>	<u>UIC</u>	<u>LOCATION</u>	<u>COORDINATES</u>	<u>APQ</u>
523rd Engr Co (PC)	WD5EAA	Vinh Long	XS043333	96357
67th Engr Co (DT)	WDZKAA	Vinh Long	XS043333	96357

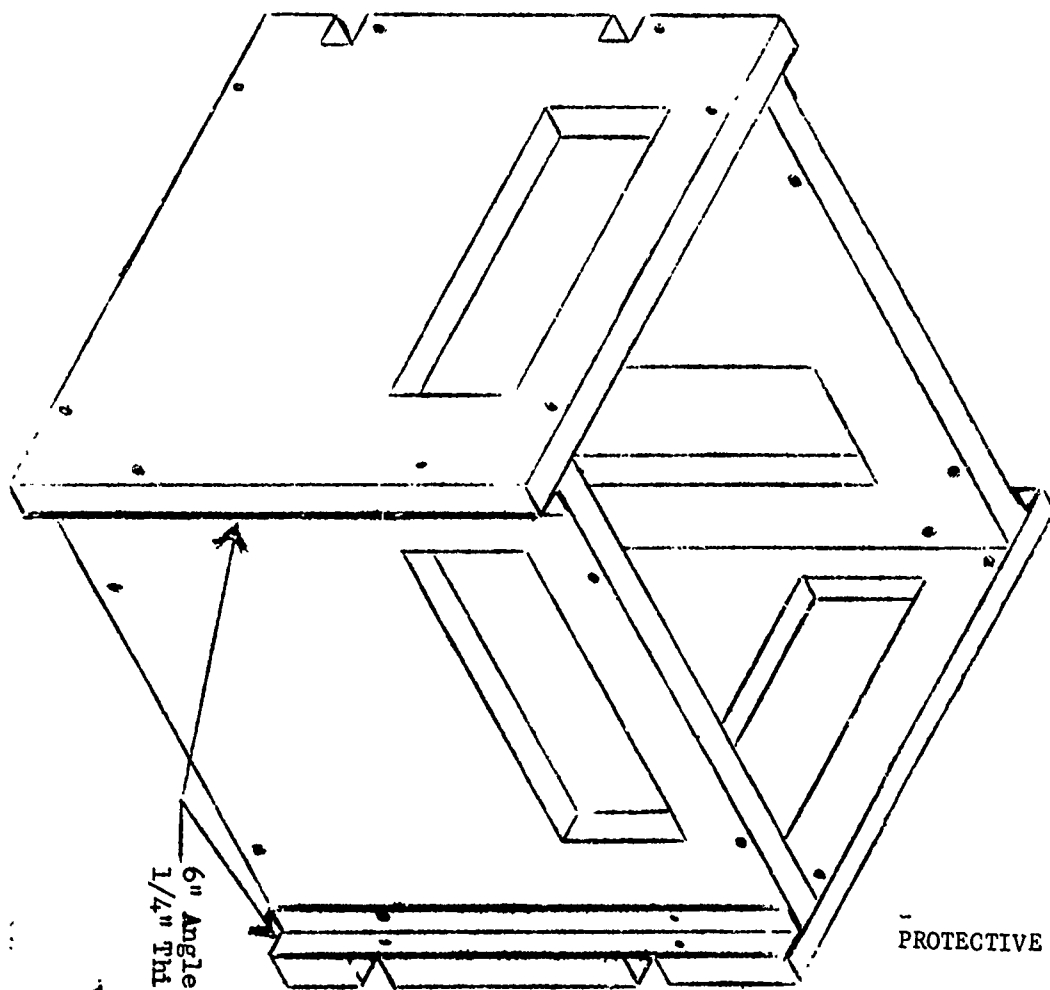
FOR THE COMMANDER:



DENNIS R. GILSON  
CPT, CE  
Adjutant

Inclosure 3 - Precast Concrete Bunker

PANEL# 8'x8'x6"  
 WINDOW- 2'x5'  
 Window Top To Panel Top-1'  
 Window Edge to Panel Edge-1'6"  
 HOOK NOTCH-6"x6"  
 Top of Hook Notch to Panel Top-2'  
 Bottom of Hook Notch to Panel Bottom-1'  
 3/4" I.D. Pipes All 8 Hole to Accommodate  
 3/4"  $\phi$  Bolts.



Incl 3 to  
 Incl 2

6" Angle Iron  
 1/4" Thick

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